LONG ISLAND TO CONNECTICUT

Location and Placement of a High Speed Ferry Service

Report to the SUFFOLK COUNTY LEGISLATURE

November 1993 Suffolk County Planning Department



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November 23, 1993

Honorable Donald R. Blydenburgh, Presiding Officer Suffolk County Legislature Veterans Memorial Highway Hauppauge, N. Y. 11788

Dear Presiding Officer Blydenburgh:

After many years of study and discussion, the concept of a new ferry service to Connecticut which would attract a commercial demand has escalated into a private sector proposal to do just that.

Suffolk County now has an opportunity to get behind a privately funded initiative, which is not in anyone's back yard. We've concluded in the report that high speed ferry service to Connecticut is feasible and can attract a new commercial market. We hope you will agree and join us in supporting this project.

Stephen M. Jones

SMJ:pd

cc: Robert J. Gaffney S. C. Executive

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Resolution No. 4 - November 3, 1993

At the regular meeting of the Suffolk County Planning Commission held on Wednesday, November 3, 1993, Commissioner Vahradian moved for the adoption of the following resolution, seconded by Commissioner Rosavitch. The resolution was unanimously passed: 9 ayes (2 absent)

- WHEREAS, various studies over the past twenty years have indicated a need and desire for additional ferry service across Long Island Sound, and
- WHEREAS, ferry vessel technology has progressed to the acceptance and use of high-speed ferries which would shorten the travel time across Long Island Sound, and
- WHEREAS, a private sector initiative has received preliminary approval from New York and Connecticut to create a route from Shoreham to New Haven at no public cost, Be It Therefore
- RESOLVED, that the Suffolk County Planning Commission wishes to record its support for this private sector undertaking; encourage the Shoreham location because of its superior accessibility and existing infrastructure in place; and endorse a high level of government support and backing for this proposal.

REPORT TO THE COUNTY LEGISLATURE

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A. BACKGROUND

In accordance with Resolution 727-1992 of the Suffolk County Legislature, the Planning Department was directed to conduct a feasibility study for high speed ferry service in Suffolk County. This resolution contained a number of underlying assumptions:

- That high speed ferry technology is uncertain and untested.
- 2. That local government may not be able to shoulder infrastructure improvements of a supporting nature.
- 3. That the Shoreham site may be environmentally incompatible with the surrounding community.
- 4. That an appropriate location would be where the heaviest concentrations of population and commercial activity exist.

Further direction came recently from the Energy, Environment and Economic Development Committee with a request to examine the feasibility of such a venture to determine its financial soundness, and also to examine a Jamesport location with access to and from the eastern terminus of the Long Island Expressway.

The staff found fifteen prior studies of Long Island Sound ferry crossings going back to 1974, making this issue one of the most frequently studied on Long Island. A bibliography of these

studies is included in the Appendix. Review of these studies was concentrated in three major reports:

- Tri-State Regional Planning Commission Study, 1975,
 "Crossing the Sound". (Synopsis and excerpts are in the Appendix.)
- 2. Long Island Sound Ferry Improvement Study, 1981 NYS Department of Transportation/Connecticut Department of Transportation. (Synopsis and excerpts are in the Appendix.)
- Long Island Sound Shuttle Limited Partnership proposal,
 "Development and Operation of High Speed Ferry
 Service".

Prior to 1992, the common thread through the studies and the major stumbling blocks to implementation were always two-fold: large sums of taxpayer supported dollars were required and displacement vessels comparable to existing craft were used as the models with respect to travel times.

B. CURRENT CONDITIONS

Conditions have changed which have caused a cross-Sound ferry route to become more feasible, more popular in its concept and worthy of support, both privately and publicly. Federal

legislation, technological advances and growing local support for economic stimulators are some factors that are currently in place that support the viability of a high speed ferry route.

1. The Clean Air Act

This sweeping federal legislation, with its funding through the Intermodal Surface Transportation Efficiency Act (ISTEA), is in the process of stimulating new activities, all of which are designed to lessen air pollution in the New York Metropolitan Area. From commuting patterns, employer responsibilities, transportation enhancements and additional road capacity improvements, government and private industry are actively seeking solutions which lessen air pollution.

2. Increased Traffic Congestion

Because of the continued disarray of OPEC and the ready supply of foreign oil, gasoline prices are still very low domestically, even with the newly added state and federal taxes at the pump. There has been an upward trend in vehicle registrations in the past ten years and truck trips continue to increase as well. Coupled with wide-ranging infrastructure improvements in the region which had been postponed since the 1970's, traffic congestion is at an all time high, giving the New York Metropolitan Area the dubious distinction of being second only to Los Angeles as a "severe

non-attainment area", a bureaucratic term for having the dirtiest air on the east coast.

3. Technology Advancements

The last twenty years have seen improvements to surface effect vessels (boats) which via water jet propulsion, improved hull designs and composite materials, or air fan design, are now capable of skimming the water surface at 45-60 knots, as opposed to displacement vessels in the 10-20 knot range. These engineering advancements alone have stimulated the interest of the private sector in re-examining a Long Island to Connecticut ferry service, since travel time across the Sound would be halved to a 45-60 minute crossing.

4. Private Financing

Private financing of ferry routes has become more feasible because technological advancements in ferry design have resulted in successful ferry routes operating both domestically and overseas. Financial feasibility results from the fact that the cost of the ferries comprises the majority of the cost of the ferry operation and the ferries can be put into service anywhere. This locational flexibility decreases the amount of risk taken by the mortgagors because new ferries have a resale value. The

necessity for public investment is reduced because the boats are the major asset backing the private investment. The reduction of public investment in cross-Sound ferry service has brought the Departments of Transportation of New York and Connecticut together to actively reconsider a ferry crossing.

5. Local Economy

Long Island continues to struggle with a stagnant local economy. Companies are leaving Long Island, becoming less competitive or continuing to face the difficulties of trucking their products off the Island. Dramatically reduced travel times across the Sound brought about by the faster vessels have now caught the attention of the private sector. Trucking companies which currently move freight off the Island to New England are looking at shaving five hours off their road time, double for the round trip. manufacturing companies themselves, are considering the possibilities of new markets in New England which could be exploited via a quicker route across the Sound. A new, faster cross-sound ferry route looms larger than ever as an economic development initiative which will benefit Long Island.

6. Shoreham Nuclear Power Plant

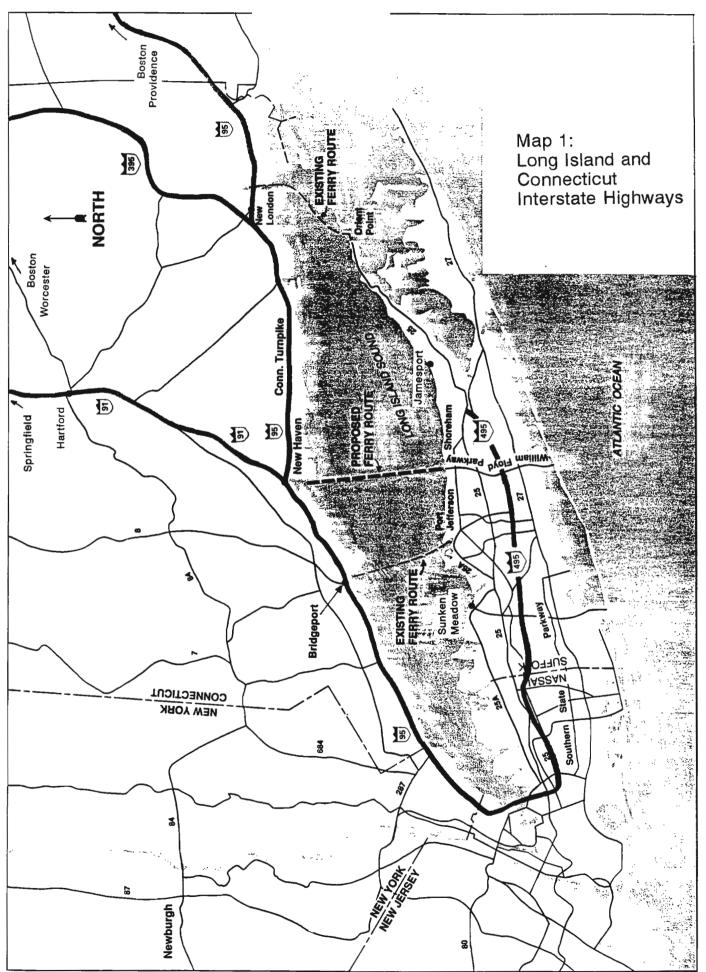
The decommissioning of the Shoreham Nuclear Power Plant has dramatically increased the interest in a Shoreham-New Haven ferry route. The presence of an active nuclear plant at the site and its required safety precautions made Shoreham an unpalatable location. However, now that the power plant has been deactivated and high speed technology has improved, this location, at the widest point of the Sound, becomes feasible.

C. HIGH SPEED FERRY LOCATIONAL FACTORS

There are generally four important considerations which have guided the discussions of potential ferry routes during the last twenty years. These four factors do not reflect community perspectives; they strictly address the conditions necessary for a successful ferry operation.

1. Interstates

Any route must take into account not only the Long
Island Expressway and other commercial arterial highways on
Long Island, but the location of interstate highways in
Connecticut. The confluence of Interstate 95 and 91 in New
Haven and the confluence of Interstate 95 and 395 west of
New London are important factors in examining the most



Map Adapted from 1991 Port Authority Ferry Feasibility Study

appropriate routes to New England across the Sound. (See Map 1, Long Island and Connecticut Interstate Highways)

2. Relationship to Existing Ferry Services and Bridges
Previous examinations of new routes have historically
taken into account proximity to New York City bridges
(particularly the Throgs Neck and Whitestone) and to the
Port Jefferson-Bridgeport and Orient-New London ferry
routes. Transportation planners have consistently ranked
lowest those routes proposed west of Port Jefferson because
they compete with the NYC bridges and would draw customers
from the Port Jefferson ferry route, rather than fulfilling
or creating a new service demand.

3. Access to Long Island Expressway

While Long Island's parkways do carry increasing volumes of traffic, they are designed in the classic parkway configuration within park-like rights-of-way and built exclusively for non-commercial traffic. State parks are the parkway's ultimate destinations. It is not likely that these roads will be altered anytime soon to carry truck traffic due to the high cost of bridge replacement and reconfiguration of interchange geometry. Therefore, the Long Island Expressway will continue to function as the

primary, limited access commercial roadway for the future.

Any north shore ferry terminal must be easily accessible to
the Long Island Expressway for it to be a viable operation.

4. Harbor Configuration

Due to the glacial geology of Long Island Sound and the north shore of Long Island, our coast is very different from Connecticut's and has relatively few sheltered harbors. A sheltered harbor on Long Island is crucial to ferry service because of prevailing northwest wind patterns during the fall and winter months which impede vessel docking. Long Island harbors are often accompanied by extensive wetlands, spits, artificial navigation channels, erosion and deposition areas. Wetlands preservation, channel dredging and other associated harbor management functions cause harbor creation and harbor maintenance to be an expensive proposition.

D. SUMMARY ANALYSIS OF ROUTES

The following are some ferry routes which have been examined during the past twenty years. A Jamesport route is also considered. The evaluations of these sites are summarized below regarding their effectiveness by current locational and other standards. Map 2 shows the locations of these sites.

Map Adapted from 1991 Port Authority Ferry Feasibility Study

1. Sunken Meadow Site

This site might be considered for non-commercial, leisure purposes by utilizing Sunken Meadow Parkway as the approach. However, this site has no promise for attracting commercial operations due to parkway restrictions of truck access. Further, necessary harbor construction would be costly and disruptive to park operations. Landfall in Connecticut would be Sherwood Point, also a state park with similar construction constraints. Other Connecticut destinations would be either too close to current bridge travel or would add significantly to travel time across the Sound.

Port Jefferson

This route is very successful in attracting tourist walk-ons from Connecticut. It has dramatically changed commerce in downtown Port Jefferson over the past twenty years. However, the dock configuration in Bridgeport and very poor access to the Long Island Expressway make this site a problem for expansion and attraction of commercial traffic. New road widenings, queuing areas, parking lots and approaches would be very disruptive to Port Jefferson and Port Jefferson Station and the costs to government to effectuate these access improvements would not be recovered.

3. Orient Point

This unhurried leisure route to and from New England has both benefitted and suffered because of its location. It is not a good site to contemplate an increase in ferry traffic because expansions to this location would be disruptive to the whole North Fork from Riverhead to Orient Point. Middle Road/Main Road (CR 27 and CR 48), the preferred commercial access, would require a high level of public investment for road improvements to make travel time viable. The resulting losses in quality of life to the North Fork communities would far outweigh any economic gains. ("The benefit of isolation"). Major changes to what currently exists would not warrant sufficient public benefit. Further, this route is eastward of the major Hartford/Springfield interstate connections in Connecticut.

4. Jamesport

The Long Island Lighting Company owns a 518 acre tract in Jamesport that straddles the Riverhead Town/ Southold Town border. The northern portion of the site is vacant and the southern portion is actively farmed. The site has Sound shoreline frontage and is therefore a possible ferry terminal site. (The Appendix contains a map of the Jamesport site with surrounding parcels).

Landfall in Connecticut would occur between the I-95/91

New Haven connection and the I-395/95 connection.

Utilization of this route by commercial traffic should not disrupt most North Fork communities east of Jamesport.

Recommendations of the Special Groundwater Protection

Area plan advise that areas north of Sound Avenue in

Riverhead be used as transfer of development rights (TDR)

receiving areas for residential development. The Jamesport

site is in this recommended TDR receiving area.

There are many potential negative impacts associated with the development of this site, including site access, harbor construction and impact to surrounding areas.

Access to the LIE would require a connection to the eastern terminus of the Long Island Expressway, 8.3 miles away. Construction of this road, in the simplest of configurations, would cost at least \$5 million for land acquisition of a minimum of 50 minimal acres of right-of-way, and at least \$25 million for engineering and construction of a simple two lane road.

The completed extension to the LIE would provide access for additional tourist traffic to the North Fork via the LIE. Additional traffic would be routed through the core area of the Pine Barrens resulting in additional development pressure in the adjacent compatible growth areas. The additional traffic brought to Riverhead and Southold towns

would create some economic advantage to wineries and other tourism associated businesses but would be coupled with increased development pressure on Riverhead and Southold farm areas.

The site would require construction of a new harbor. Construction would be very costly, both financially and environmentally.

Lastly, commercial traffic may perceive this route as too far east to be attractive for trucking, impacting the financial feasibility of this site.

E. EXAMINATION OF PREFERRED SITE

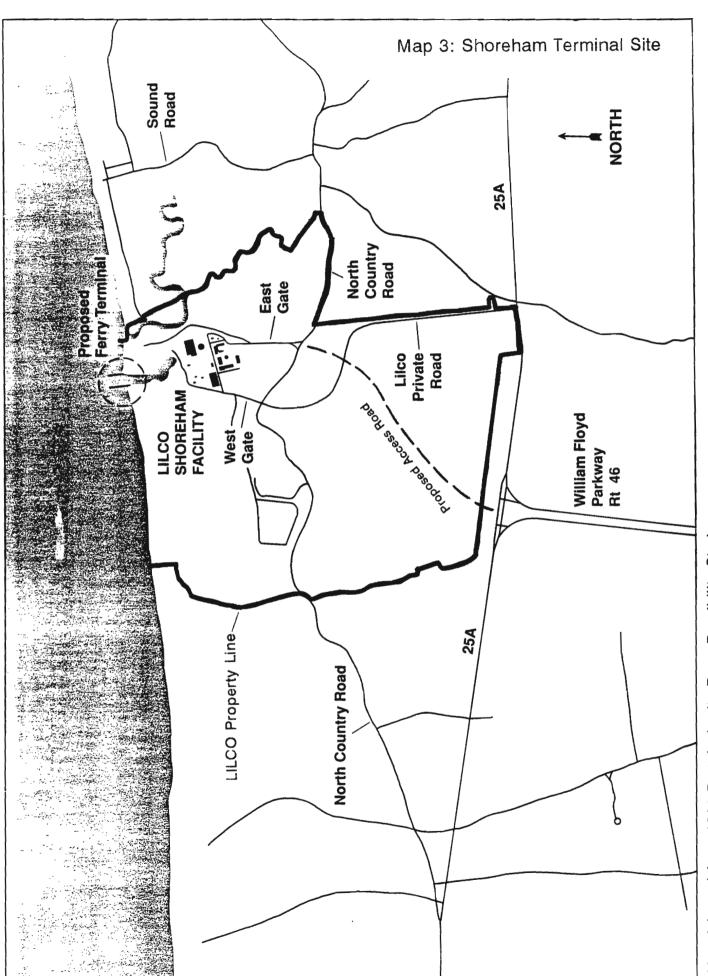
Based on site availability, locational criteria, improved technology and community and environmental factors, a Shoreham-New Haven route is the most desirable for the following reasons:

1. Site Availability

The proposed ferry terminal would be located on part of the site containing the decommissioned Shoreham Nuclear Power Plant. The removal of active reactor core materials re-establishes the site for traditional industrial development. The site is presently zoned L-4 industry by the Town of Brookhaven. A copy of Brookhaven zoning for the area is included in the Appendix. The site is owned by



Figure 1: Oblique Aerial Photograph of Shoreham Site



Map Adapted from 1991 Port Authority Ferry Feasibility Study

LILCO, a leading proponent of economic development for Long Island.

The site contains disturbed areas which can accommodate queuing and the ferry terminal. The site is also large enough to provide a substantial buffer for the access road and queuing areas from surrounding residences.

2. Interstate Highway Linkage

The site lies at the northern terminus of William Floyd Parkway (CR 46), a north-south, four lane, divided highway that does not restrict commercial traffic and intersects the Long Island Expressway with a high volume interchange. Currently, this road handles approximately 25,100 annual average daily traffic (AADT) in the most traveled section of the road north of the LIE. William Floyd Parkway is designed to handle 57,600 AADT. North Shore Properties development proposals mitigate traffic generation on CR 46 and present the potential for additional highway improvements. The Appendix contains a memorandum from SCDPW with detailed traffic volume data for William Floyd Parkway.

The site has access directly to William Floyd Parkway via LILCO holdings. A relatively short, controlled driveway, a portion of which already exists, would be built solely on LILCO property.

The Shoreham site connects directly to New Haven Connecticut at the confluence of I-95 and I-91, the two major interstates serving all of New England.

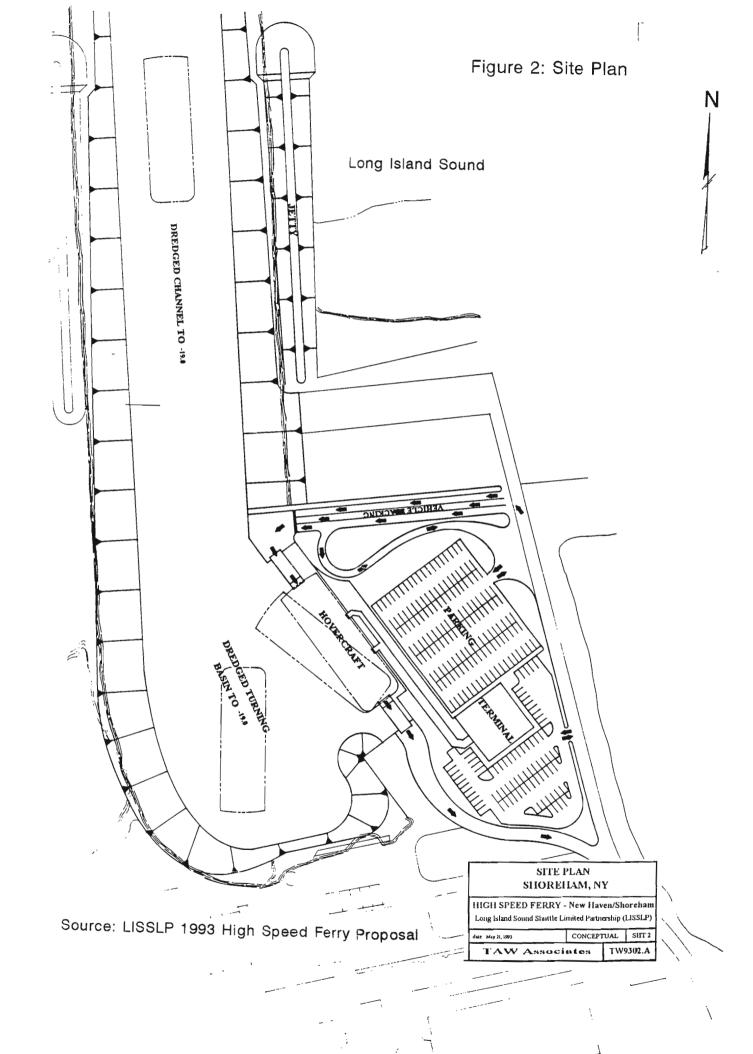
3. Harbor Configuration

The Shoreham site possesses a harbor facility constructed by LILCO for the power plant. The harbor may require additional alterations but the site's original wetlands have already been disturbed and can no longer be considered pristine. The site plan in Figure 2 shows a conceptual drawing for the ferry site. Figure 3 shows an aerial overview of the site.

4. Site Location

Shoreham is located between the two existing cross-Sound ferry routes and presents the best possibility of capturing the commercial market for cross-Sound trips, without excessive financial or environmental cost.

Although the site is located at the widest part of the Long Island Sound, technological advancements in vessel design will reduce travel time to Connecticut to 45-60 minutes.



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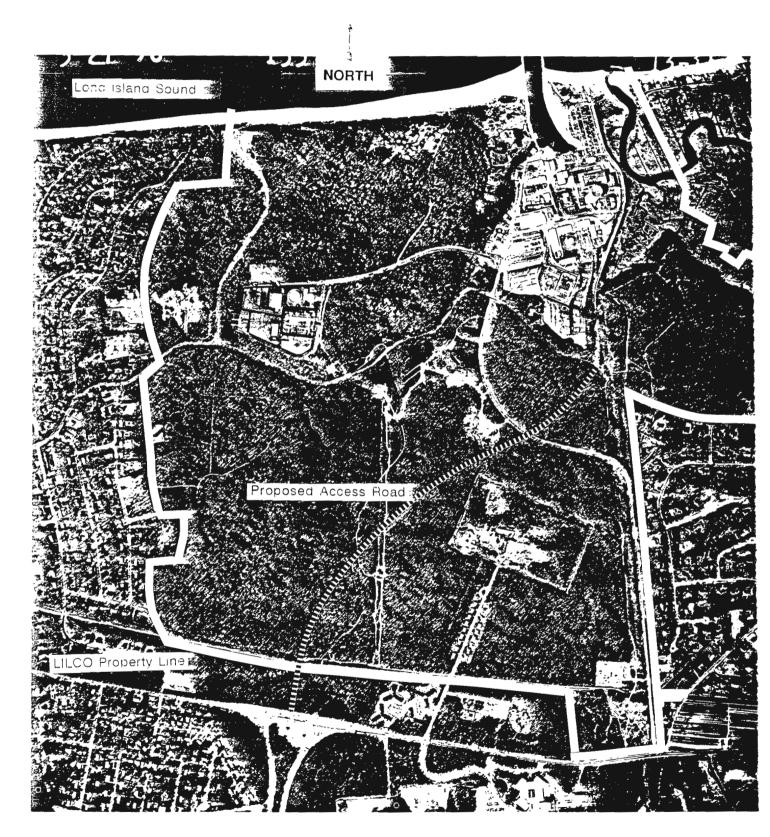


Figure 3: Site Aerial Photograph

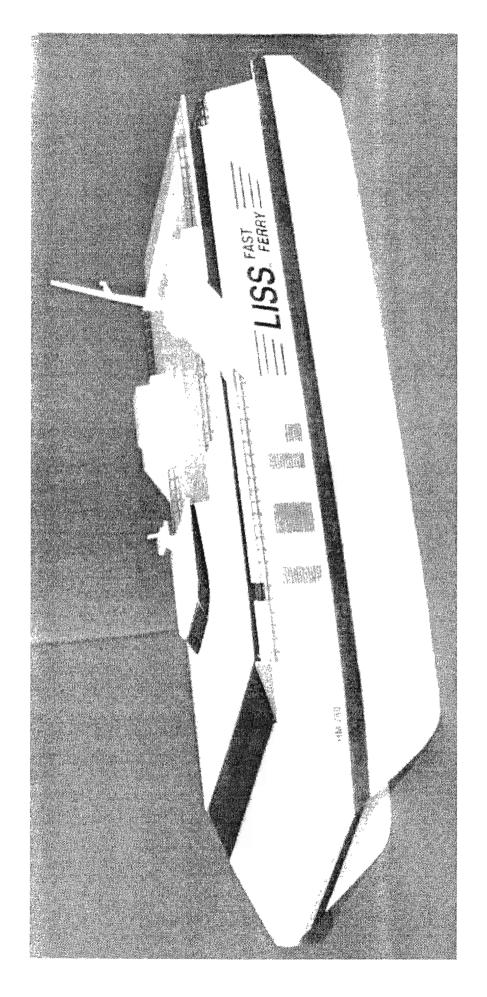


Figure 4: Model of a Surface Effect Type Vessel

F. EXAMINATION OF THE CURRENT PROPOSAL

The states of New York and Connecticut have considered a private sector initiative to establish a Shoreham-New Haven ferry route and have found it feasible, subject to certain requirements. We agree and believe that this initiative should be encouraged and nurtured.

In a 1991 study, the Port Authority of New York and New Jersey estimated that a two boat ferry service between Shoreham and New Haven would operate at a deficit of at least \$4.27 million. However, the Long Island Sound Shuttle Limited Partnership (LISSLP), in the confidential financial plan submitted to the bi-state review committee, projected increasing profits after their third year of operation.

LISSLP believes that Port Authority revenue figures are low because the Port Authority based their projections on a traditional ferry service with a crossing time in excess of one and a half hours and did not take into account the additional demand the company feels will be created by the vastly reduced crossing time of under one hour. The Port Authority estimated that 50,000 trucks a year would use the service and LISSLP estimated 60,000 trucks a year.

In addition, new vessel capacity will be greatly expanded compared to traditional boats. The new vessels will have a payload capacity of 450 passengers, 65 cars and 6 tractor trailers (or a combination of vehicles up to 239 tons). A model

of the Surface Effect Type Vessel is pictured in Figure 4.

Revenue will also be enhanced with a more expensive fare schedule than that used for the 1991 study, but comparable and competitive with current ferry rates.

LISSLP is prepared to invest \$77.5 million into this venture with approximately \$15.5 million in equity capital, the remainder of which will be financed. There are no public funds needed for this project to move ahead.

The appendix contains an excerpt from the Proposal for Development and Operation of High Speed Ferry Service with the anticipated permit requirements. The permit process is crucial in assuring the mitigation of the proposals impact on the surrounding environment.

G. SUMMARY

Implementation of the proposed high speed ferry service will provide many benefits to Long Island's economy and transportation network. There is a clear economic need for ferry service to Connecticut. The amount of freight generated in central and eastern Long Island is expected to increase. Firms in central and eastern Long Island are currently "dead-ended" in terms of location and this contributes measurably to their transportation costs and to the final cost of their products.

It is essential that Long Island preserve and enhance its manufacturing base. Freight service to Connecticut, provided it

could accommodate a significant number of tractor trailers, would help accomplish this goal. It could reduce the transportation costs of those manufacturers currently located in Suffolk County and help attract other manufacturers that need access to our skilled labor force but view Long Island's dead end geographic status as a major negative.

Private financing of the ferry service with its associated minimal risk to taxpayers alleviates the public cost without diluting the public benefit. As long as the private sector bears the financial burden of the proposed Shoreham-New Haven ferry route, there is no reason not to encourage the initiative.

The removal of government as a major financing partner from the project shifts the burden of financial feasibility to the private sector. The public sector can now focus on the public need and desirability for improved and expanded ferry service and the economic benefit associated thereto.

The associated impacts of development pressure and traffic congestion on existing local roads can be identified and mitigated through the permitting process.

The LISSLP projects a property tax expense of a little more than one half million dollars per year. The creation of new taxable property will help to offset the devaluation of the tax base caused by the decommissioning of the Shoreham nuclear power plant. Also, the siting of a ferry terminal on the site should

not preclude additional development by LILCO in the event that more power generation is required in the future.

The only public benefits that might be utilized by the designated ferry service company is fast tracking and credibility in the financial markets. Financial credibility would result from tax-exempt, private funding via an economic stimulator such as the Urban Development Corporation or an Industrial Development Agency. Fast tracking would be initiated by the town, county and state by speeding up the permitting process.

A viable site has become available, advanced technology will provide shortened travel time, and private financing is feasible. The time is right for the development of a high speed ferry service from Shoreham to New Haven.

APPENDIX

- Bibliography, Long Island Sound Ferry Studies
- Synopsis: <u>Crossing the Sound</u>, Tri State Regional Planning Commission, 1975
- Excerpt: <u>Crossing the Sound</u>, Tri State Regional Planning Commission, 1975, pp. 40-46.
- Synopsis: <u>LI Sound Ferry Service Improvement Study</u>, NYS and CT Department of Transportation, 1981
- Excerpt: <u>LI Sound Ferry Service Improvement Study</u>, NYS and CT Department of Transportation, 1981, pp. 8-9.
- Jamesport Site location map
- MEMORANDUM, November 5, 1993 Suffolk County Department of Public Works, Traffic Control and Engineering Division
- Zoning Map Shoreham Site and Surrounding Area, Town of Brookhaven and Town of Riverhead
- Excerpt: Proposal for Development and Operation of High Speed Ferry Service, Long Island Sound Shuttle Limited Partnership, 1993, pp. 16-20.

Bibliography:

Long Island Sound Ferry Studies

Agency	Study	<u>Date</u>
Tri State RPC	L.I. Sound Ferry Study - Preliminary Waterways Assessment 15 Potential Ferry Routes Shortest time - Pt. Washington/Rye Sunken Meadow State Park/Sherwood Island State Park East Marion/Fenwick East Marion/Saybrook Point	Sept/74
Tri State RPC	L.I. Sound Ferry Study - Land Access Feasibility Report 5 Site Evaluation Cost Alternatiaves	June/75
Tri State RPC	L.I. Sound Ferry Service - An Economic Analysis of Ferry Service Across L.I. Sound 10 Possible Crossings East Marion/Fenwick Lowest Cost	June/75
Tri State RPC	Crossing the Sound 9 Route Evalautions New Haven/Wading River, Centerville/Guilford	Dec/75
Tri State RPC	L.I. Sound Ferry Study - Technical Supplement	May/76
NYSDOT	L.I. Sound Bridge Study - Vol XII - Ferry Service Old Saybrook/East Marion	Dec/79
NYSDOT	L.I. Sound Ferry Service Improved Study 7 Site Evaluations	Dec/80
NYSDOT	L.I. Sound Ferry Service Improvement Study - Environmental Considerations	Jan/81
NYSDOT	<pre>L.I. Sound Ferry Service Improvement Study - Summary of Findings 7 Site Evaluations</pre>	Feb/81
NYSDOT CONNDOT	L.I. Sound Ferry Improvement Study 8 Site Evaluations Improvements to Pt. Jefferson/Bridgeport & Orient Point/ New London Study New Haven/Shoreham	Apr/81
NYSDOT	L.I. Sound Ferry Service Improvement Study - Conclusions of the Policy Advisory Committee Members	Apr/81
LIRPB	L.I. Comprehensive Plan - Transportation Element Shoreham/New Haven Support	Jan/90
SCDPW	Ferry Study Shoreham Recommendations	Nov/90
McLean Assoc.	Town of Brookhaven Transportation Plan LILCO Site Recommendation	Mar/91
PANY&NJ	Shoreham-New Haven Ferry Feasibility Study Feasible with Deficit	Mar/91

SYNOPSIS: <u>Crossing the Sound</u>, Tri-State Regional Planning Commission, 1975

The cross-Sound bridge option has been virtually eliminated by local opposition and lack of appropriate sites, but the transportation need is still unmet. A new ferry would ease the difficulty of travel across the Sound at a much lower construction cost than a bridge.

The 1975 Study evaluated the following factors, for each of the eleven potential sites:

- 1. Potential economic performance
- 2. Highway access, impact and feasibility
- 3. Shoreline site access, impact and feasibility
- 4. Terminal location and construction impact and feasibility
- 5. Overall feasibility

The results, with 17-knot, 100-vehicle vessels carrying 500,000 vehicles per year, are as follows:

Crossing

Overall Feasibility Rating

Lloyd Point-Stamford Poor
 Sunken Meadow-Sherwood Point Very Poor
 Port Jefferson-Bridgeport (current) Fair *
 Port Jefferson-Bridgeport (Fayerweather Is.) Very Poor
 Wading River (Shoreham)-New Haven Fair *

6. Wading River (Shoreham)-East Haven

7. Centerville (Baiting Hollow)-Guilford

8. Hashamock Beach (Southold)-Westbrook

9. Greenport-New London

10. East Marion-Saybrook Point

11. Orient Point-New London

Good *

* - Feasible

Based on this analysis, no clearly desirable sites emerged for large-scale ferry service. Using 100-vehicle capacity vessels, only the East Marion-Saybrook Point route shows projected revenues which are greater than costs. Unfortunately, the most attractive sites from an economic point of view have severe problems with feasibility of land access and the environmental impact of ferry terminals.

The crossings on the North Fork were determined to have the highest potential savings for travelers.

In Port Jefferson, major improvements would have to be made to accommodate a ferry serving just 200,000 vehicles per year. Port Jefferson's roads could not tolerate the 200,000 or more vehicles which would use a major ferry service.

For the Sunken Meadow-Sherwood Point sites, land access is not feasible on the Connecticut side. There is good highway access to Sunken Meadow via the Sunken Meadow State Parkway, but very poor site access due to the presence of state parks on the Long Island and Connecticut sides.

The worst feature of the potential Shoreham crossings was their potential economic performance.

The highest land access costs, exclusive of land acquisition, exist in the following locations: East Marion-Saybrook, Orient Point-New London, Port Jefferson-Bridgeport, Wading River (Shoreham)-New Haven, and Sunken Meadow-Sherwood Point.

Minimal additional increases in population and employment from a new 17-knot ferry (generally less than 1% in 30 years) were projected. Use of the ferry for commuting to work is not likely in large numbers because of the costs and time involved. The ferry would cause only a slight (less than 2%) reduction in travel on the Throgs Neck and Whitestone bridges. The ferry service would reduce fuel use and air pollution emissions slightly. A high-speed ship and Hovercraft would add to fuel and emissions because they would burn considerably more fuel per vehicle than it takes to drive around the Sound.

The most significant environmental impact of the ferry is the traffic that will be generated on local access roads. Also, some limited services to travelers might develop at the terminal sites themselves.

A possible alternative to a new ferry site is to improve service on the two existing ferry lines, possibly with the help of the states.

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IV SITE-BY-SITE ANALYSIS

The economic performance of each of the ferry services was summarized in Tables IXa and IXb. A decision on implementing ferry service must also take the following other factors into account:

- Highway Access, Impact and Feasibility--Impact of ferry traffic on local roads, and feasibility of making needed improvements.
- 2) Site Access, Impact and Feasibility--Problems involved in providing access from the local roads to the shoreline.
- 3) Terminal Location and Construction Impact and Feasibility.
- 4) Overall Feasibility.

SITE EVALUATION: Stamford - Lloyd Pt.

500,000 Vehicles per Year - by 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performance	POOR	Benefits : costs = .703
Impact & Feasibility of:		
Highway Access	POOR	The Long Island site is located far from major highways. Extensive improvements would have to be made.
Site access	FAIR	No detailed study has been made.
Terminal Location & Construction	VERY POOR	The harbor in Stamford is too narrow for the use of large ferry vessels. Extensive interference with local boating would occur in Lloyd Harbor.
Overall Feasibility	POOR	

SITE EVALUATION: Sunken Meadow - Sherwood Pt. 500,000 Vehicles per year - 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performance	FAIR	Benefits ÷ Costs806
Impact & Feasibility of:		
Highway Access	GOOD	Both sites can be reached by limited access roads. Trucks at Sunken Meadow would have to use Route 25A.
Site Access	VERY POOR	The terminal access roads in both Connecticut and Long Island would be located in state parks or would require extensive excavation.
Terminal Location and Construction	VERY POOR	The terminal sites would have to be established on park land.
Overall Feasibility	VERY POOR	

SITE EVALUATION: Bridgeport (Current site) - Port Jefferson 500,000 Vehicles per Year - 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performance	POOR	Benefits + Costs = .715
Impact & Feasibility of:		
Highway Access	VERY GOOD (CONN) POOR (NY)	The site in Bridgeport is adjacent to I-95 and within walking distance of the bus and train terminals. Local roads in Port Jefferson are already congested. Improvements are feasible but would have to overcome strong local opposition. Truck access may not be possible at the current site.
Site Access	GOOD	Modifications would have to be made to handle trucks in Bridgeport.
Terminal Location and Construction	GOOD	Both sites are located in natural harbors.
Overall Feasibility	FAIR	

SITE EVALUATION: Bridgeport (Fayerweather Island) - Port Jeffersøn

500,000 Vehicles per Year - 100-Vehicle Vessel

CRITERIA	RATING	REASON
Economic Performance	POOR	Benefits - Costs = .72
Impact & Feasibility of:		
Highway Access	GOOD (CONN) POOR (NY)	The site in Bridgeport is located near I-95. Local roads in Port Jefferson are already congested. Improvements are feasible but would have to overcome local opposition.
Site Access	POOR (CONN) GOOD (NY)	The Fayerweather Island access road would have to go through part of Seaside Park in Bridgeport.
Terminal Location and Construction	VERY POOR (CONN GOOD (NY)	N)The Fayerweather Island terminal would require extensive dredging in oyster bays. Operation of the terminal would interfere with pleasure boating.
Overall Feasibility	VERY POOR	

SITE EVALUATION: New Haven - Wading River

500,000 Vehicles per Year - 100 Vehicle Capacity Vessel

CRITERIA	RATING	REASON
Economic Performance	POOR	Benefits + Costs = .672
Impact & Feasibility of:		
Highway Access	VERY GOOD	Easy access to I-95 in Connecticut. Easy access to William Floyd Parkway in Long Island.
Site Access	FAIR	The Long Island site is an alternate site for a nuclear power plant. This may preclude the introduction of a ferry terminal. Access is good at the New Haven site.
Terminal Location and Construction	FAIR	A one-half mile pier would have to be built on Long Island.
Overall Feasibility	FAIR	

SITE EVALUATION: East Haven - Wading River

500,000	Vehicles per Year	- 100-Vehicle Vessels
CRITERIA	RATING	REASON

Economic Performance FAIR Benefits - Costs = .822

Impact & Feasibility of:

Highway Access

GOOD

Improvements to local roads would be required in East Haven. Easy access to William Floyd Parkway on Long Island.

Site Access

FAIR

The Long Island site is an alternate site for a nuclear power plant. This may preclude the introduction of a ferry terminal.

Terminal Location & FAIR A one-half mile pier

Terminal Location & FAIR A one-half mile pier would have to be Construction built on Long Island.

Overall Feasibility FAIR

SITE EVALUATION: Guilford - Centerville

500,000 Vehicles per Year - 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performance	FAIR	Benefits : Costs = .925
Impact & Feasibility of:		
Highway Access	POOR	Extensive improvements would have to be made to roads in residential areas on Sachem Head in Connecticut.
Site Access	GOOD	No particular problems were apparent.
Terminal Location and Construction	FAIR	A 600-foot pier would have to be built in Connecticut and a 1400-foot pier on Long Island.
Overall Feasibility	FAIR	

SITE EVALUATION: Westbrook - Hashamock Beach

500,000 Vehicles per Year - 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performance	GOOD	Benefits ÷ Costs = 1.394
Impact & Feasibility of:		
Highway Access	POOR	Road improvements would have to be made through dense residential development in Connecticut.
Site Access	FAIR	The shoreline is used for bathing in Connecticut and New York.
Terminal Location and Construction	POOR	A 900-foot pier would have to be built in Connecticut in an area of heavy pleasure boating.
Overall Feasibility	POOR	

SITE EVALUATION: New London - Greenport

500,000 Vehicles per Year - 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performanc	ee POOR	Benefits : Costs = .706
Impact & Feasibilit	cy of:	
Highway Access	GOOD (CONN) POOR (NY)	Extensive highway improvements are required to handle ferry traffic over 200,000 vehicles per year.
Site Access	GOOD	N5 problems are apparent.
Terminal Location a	and GOOD	No problems are apparent.
Overall Feasibility	POOR	

SITE EVALUATION: Saybrook Pt. - East Marion 500,000 Vehicles per Year - 100-Vehicle Vessel

CRITERIA	RATING	REASON
Economic Performance	GOOD	Benefits - Costs = 1.226
Impact & Feasibility of:		
Highway Access	GOOD	Extensive improvements would have to be made on the North Fork to handle ferry traffic of over 500,000 vehicles per year.
Site Access	VERY POOR	At Saybrook Pt. in Connecticut a cause- way would have to be built through land protected by the establishment of the Connecticut River Gateway Zone.
Terminal Location & Construction	VERY POOR	The terminal facility would have a strong visual impact on land included for preservation in the Connecticut River Gateway Zone.
Overall Feasibility	POOR	

SITE EVALUATION: New London - Orient Pt.

500,000 Vehicles per Year - 100-Vehicle Vessels

CRITERIA	RATING	REASON
Economic Performance	FAIR	Benefits : Costs929
Impact & Feasibility of:		
Highway Access	GOOD	Good access to I-95 in Connecticut. Highway improvements would have to be made on the North Fork to handle ferry traffic of over 500,000 vehicles per year.
Site Access	GOOD	No problems anticipated at either site.
Terminal Location and Construction	GOOD	Ferry terminals have been established at both sites.
Overall Feasibility	GOOD	

	SERVICE	using 100-Vehicle Vessels	ILITY	TERMINAL OVERALL	LOCATION FEASIBILITY	Very Poor	Very Poor	Good Fair	Poor	Fair Poor	Fair	Fair	Very Poor . Poor	Good Poor	Very Poor Poor	poo9 poo9
TABLE XI	FERRY	- 1	IMPACT AND FEASIBILITY	SITE	ACCESS	Fair	Very Poor	Good	Fair	Fair	Fair	Good	Very Poor	Good	Very Poor	Good
	OVERALL EVALUATION OF	500,000 Vehicle Service	IM	HIGHWAY	ACCESS	Poor	poog	Fair	Fair	Very Good	Good	Poor	Fair	Poor	Good	Good
		5(ECONOMIC	PERFORMANCE	Poor	Fair	Poor	Poor	Poor	Fair	Fair	Good	Poor	Pood	Fair
						STAMFORD -LLOYD PT -	SUMKEN WEAD- SHWD PT	BPT - PT JEFF (CURRENTS -	PT JEFF-RPT (F'WTHR IS.M-	NEW HAVEN-MADING RIVER -	FAST HAVEN-WADING RIVER -	GUILFOOD-CENTERVILLE -	WESTBRK HRR-HASHAMOMUC< -	NEW LONDON-GREENPORT -	FAST MARION-SAYBROOK PT	NEW LONDON-ORIENT PT

SYNOPSIS: L.I. Sound Ferry Service Improvement Study, NYS and CT DOT, 1981

The major alternatives for ferry service corridors and terminal locations have been widely established over decades of cross-Sound transportation improvement studies, and by the geographic location of natural harbors, urban concentrations, and on-land facilities already in place. All major potential cross-Sound ferry service corridor and terminal location alternatives were identified and examined for this study.

Little public support or technical evidence has been found in favor of the corridor alternatives to the west of Port Jefferson-Bridgeport. Those western alternatives could also significantly and adversely impact the present locally supported private Port Jefferson ferry service.

No location clearly emerged on all counts as the most desirable alternative to pursue. However, of those alternatives, the Shoreham-New Haven crossing appears to offer the most promise (p.24). Its terminal locations have the best land access connections of all alternatives identified. This is an important factor in providing services for trucks, and for the need to consider shifting a portion of longer range and potentially much greater cross-sound vehicle and truck travel away from the existing cross-Sound service locations to avoid possibly significant adverse environmental or community impacts. But this corridor is the longest and potentially one of the most expensive to implement.

The investment required for a "major improvement" in cross-

Sound ferry services would equal 6.67 percent of the average estimates of investment required for a new bridge. Cross-Sound ferry services at this time are a matter of primarily private sector concern and initiative. Formal public involvement is essentially limited to federal safety and operating authority controls, and to general governmental concern with such matters as traffic control, municipal harbor facilities and the environment, principally regarding dredging. The two State Departments of Transportation, together with local officials, should provide technical assistance and serve evaluation and coordination roles in the ferry project.

A combination of crossing locations - especially with a possible third centrally located service - will provide the best potential for service improvements and traveler and economic benefits. The two existing crossing corridors appear best to meet the overall study objectives of economic feasibility and broad local support. Still, study forecasts indicate that the additional overall regional cross-Sound travel demand can be served conveniently, and in some cases with a positive revenue-cost relationship, by a set of three rather than two ferry services. The user demand, cost, and revenue estimates developed by this study are generally encouraging for the private sector to take the initiative in cross-Sound ferry service improvements, financing, and operations.

- From Long Island Sound Ferry Service Improvement Study, 1981 (NYS & CT DOT)
 - cess facilities generally adequate for major service and usage increases, and enjoy local support for current and expanded service. Parking and staging areas and passenger terminals are available, and can be readily expanded. Minimum, if any, community or environmental impacts are expected to be associated with service or facility improvements. Corridor crossing distance is about 14 nautical miles, with relatively little in-harbor maneuvering and related travel time penalties.
 - 2. Port Jefferson-Bridgeport: Also termini of existing ferry service (if only seasonal of limited capacity), harbor areas are adequate, but dock, parking and staging, and immediate land access facilities require improvements before they can handle even moderate capacity and service improvements. This is particularly true for use by heavy commercial trucks at Bridgeport, where the existing ferry terminal is adjacent to train and bus stations and the Connecticut Tumpike. Few if any community or other impacts are expected to accompany service and usage increases or carefully designed improvements. Local support for service expansions is evident, including support, especially in Bridgeport. for heavy commercial truck capacity now lacking. Corridor crossing distance is just over 12 nautical miles, but speed penalties for in-harbor operation are encountered at both termini.
 - 3. Greenport-New London: The Mascony Ferry and Transport Company Inc. has proposed to operate on this cross-Sound corridor, which is longest of the alternatives examined in terms of crossing distance (almost 20 nautical miles). That company has not gained a terminal site or general local support at Greenport, where in-harbor speed delays and potential conflicts with the Sheiter Island Ferry would be encountered.

- I. Orient Point-New London
- 2. Port Jefferson-Bridgeport
- 3. Greenport-New London
- 4. Sunken Meadow-Bridgeport
- 5. Huntington Bay-Norwalk
- 6. Orient Point-Old Saybrook
- 7. East Marion/Orient-Old Saybrook (North
- 8. East Marion/Orient-Old Saybrook (Ferry Point)
- 9. Shoreham-New Haven
- 10. Shoreham-East Haven (Lighthouse Pt.)
- 11. Shoreham-West Haven

Cost, usage, and revenue estimates associated with each of these cross-Sound ferry service corridor-terminal alternatives are given in subsequent sections of this report. Other significant considerations and study findings, including evidence of local or public support for each of these corridor alternatives, may be summarized as follows:

1. Orient Point-New London: These termini of the principal existing cross-Sound ferry service corridor have harbor and land ac-

- 4. Sunken Meadow-Bridgeport: A new harbor, or half-mile off-shore trestle, as well as terminal and parking facilities, would be required at Sunken Meadow, which is a major seashore recreation and park facility. Automobile access is good, but access for heavy commercial trucks would be difficult and/or circuitous at both termini. There is no evidence of local support at Sunken Meadow, and major service facilities and operations would be expected to have significant disruptive and environmental impacts. Corridor crossing distance would be slightly more than 13 naurical miles but, with an off-shore trestle at Sunken Meadow, combined in-harbor time penalties would be lessened.
- 5. Huntington-Norwalk: Probably the most western cross-Sound corridor that could support ferry service, even with fast vessels. due to proximity to existing bridges, these termini present major harbor development or operations problems and probable inharbor speed delays, especially at Norwalk. Harbor, terminal, and land access improvements would be required at both termini and could be expected to have significant community and environmental impacts, particularly from extensive dredging requirements at both termini and from a 1/3-1/2 mile pier at Huntington. Corridor crossing distance is somewhat less than 10 nautical miles, exclusive of in-harbor operations. There is some evidence of support at Norwalk, but little to none at Huntington.
- 6- East Marion/Orient-Old Saybrook (North 8. Cove, Ferry Point), and Orient Point-Old Saybrook: The first two of these cross-Sound corridor alternatives would offer by far the shortest corridor crossing distance, at 7 1/2 miles (and thus minimize time and operating cost per trip), but, as with the last above corridor alternative, would require the creation of new harbor, terminal, and land access facilities (on the Long Island

- side), and these plus dredging and inharbor time penalties for Old Saybrook terminus. Significant environmental impacts could be expected at all new terminal-harbor facilities. None of these crossing-corridor alternatives are supported locally, and opposition to a ferry operation and facilities at all potential Old Saybrook sites is very strong.
- 9- Shoreham New Haven. West Haven. 11. East Haven (Lighthouse Point): These sets of cross-Sound corridor alternatives would have the longest corridor crossing distances (16 to almost 19 nautical miles) of any alternatives studied except for Greenport-New London. Some dredging and traffic improvements would be required for the Connecticut sites, and an entirely new harbor or 1/2 mile-long pier, terminal, and immediate land access facilities would be needed at Shoreham. Possibly significant environmental impacts may be associated with such improvements. There is local support for the New Haven terminal location, which would have very good access to Interstate highways. There is both strong general business support and significant local opposition to the Shorenam terminal sites, which could have very good access to major highways.

Jamesport Site

SUFFOLK COUNTY DEPARTMENT OF PUBLIC WORKS Traffic Control and Engineering Division MEMORANDUM

November 5, 1993

40:14

TO: Steve Jones, Director of Planning

FROM: Matthew T. Rankel, P.E.,

Director of Traffic Safety

RE: TRAFFIC VOLUMES ON WILLIAM FLOYD PARKWAY, CR 46

The following Table indicates 1992 AADT (Annual Average Daily Traffic) on William Floyd Parkway from the LIE north to Route 25A. Peak hour volumes are also included.

TRAFFIC VOLUMES

		AM I	PEAK	PM 1	PEAK
ON CR 46	1992 AADT	NB	SB	NB	SB
between north C-D and Longwood Rd.	25,100	946	913	1050	961
Longwood Rd. to Rte. 25	15,400	447	899	755	415
Rte. 25 to Rte. 25A	9,600	353	626	552	377

We estimate capacity on CR 46 (LOS E) to be 2400 vehicles per hour (vph) per direction. Therefore, there is significant reserve capacity over existing volumes.

While North Shore Properties will add substantial volumes to CR 46 as its developed, we would expect appropriate mitigation measures to accommodate the additional generation.

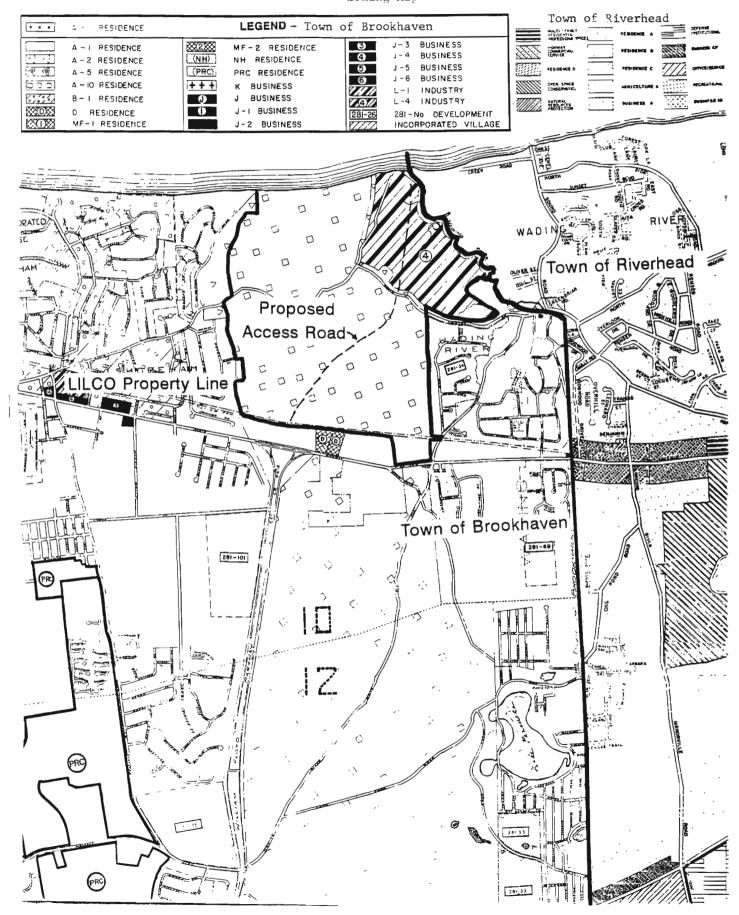
Should you require any additional information on this matter, please do not hesitate to contact this office.

Bv:

Matthew T. Rankel

MTR:RCM:dpr

Zoning Map



Compatibility of Shoreham Terminal Site With Power Plant:

The existing inlet of the Shoreham site will be enlarged into a turning basin to facilitate terminal operation and provide a protected haven for maneuvering of the vessel. Surface effect vessels (SES) cause little or no wake and turbidity is greatly reduced by water jet propulsion, therefore, there will be minimal effect on water quality in the turning basin. The water intake for the anticipated continued operation of the power plant will not be affected by the use of the proposed SES vessel.

Access and egress to and from the terminal will by-pass the plant and its main entrance and, therefore, will not interfere with the anticipated continued operation of the power facility.

Consistency of New Haven Terminal Site With Existing Harbor Development:

The New Haven site expands on an existing operating shore facility. Development of the site will be an upgrade to existing conditions.

Impact on Surrounding Environment:

The New Haven site is presently an active terminal handling several hundred trucks each day. Development of the ferry terminal facility will have little effect on present traffic or possibly reduce truck traffic in the immediate area. The continued commercial use of the site will minimize any impact to the surrounding environment.

The Shoreham site has been undergoing major construction and alterations for the past twenty years. The site has been exposed to considerably more heavy construction equipment, noise pollution, etc. as a result of the present activity than it will be by the proposed development and operation of a ferry terminal site. The permit process has been designed to address such impacts.

Our design team includes services of experts in this area who will carry the permitting through the design and development phases.

The anticipated permit requirements are listed below:

11

8

HEDERAL

process sister Federal Agencies including the Environmental Protection ARMY CORPS OF ENGINEERS PERMIT for dredging, breakwater and/or Agency, United States Fish & Wildlife Service and the United States Fisheries Service will be part of the regulatory review and permitting groun extensions, docking facilities, shoreline and interface facilities including bulkheading piling and similar activities. As part of the process and the NEPA process must be satisfied.

U.S. COAST GUARD PERMIT for navigational lighting.

normally the responsibility of the site owner and operator, the change of authorization and working with the Agency regarding existing permit ATOMIC ENERGY AGENCY - PERMIT - DEACTIVATION OF THE NUCLEAR POWER PLANT CORE REACTOR. While this is use of the in-water area and upland may involve a deactivation conditions as well as potential new permits.

STATE

CONNECTICUT

CT DEPARTMENT OF ENVIRONMENTAL PROTECTION:

bulkheading piling and similar activities along with a PERMIT(s) for dredging, wave attenuation, docking COASTAL CONSISTENCY CERTIFICATION as well as facilities, shoreline interface facilities including WATER QUALITY CERTIFICATE. In the event of upland or in-water (within CT Territorial Waters) disposal of dredged materials, the CTDEP will have to include same along with a WATER QUALITY CERTIFICATE

CONSTRUCTION ACTIVITIES if the site is 10 acres or Permit for STORM WATER MANAGEMENT FOR larger.

CT TRAFFIC CÔMMISSION:

Permit required for parking and traffic of more than 200 cars.

NEW YORK STATE:

DEPARTMENT OF STATE:

shoreline interface facilities including bulkheading piling COASTAL CONSISTENCY CERTIFICATION: for dredging, breakwater and/or groin extensions, docking facilities, and similar activities.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

docking facilities, shoreline interface facilities including bulkheading piling and similar activities including a PERMIT for dredging, breakwater and/or groin extensions, WATER QUALITY CERTIFICATE. In the event of upland disposal of dredged materials, the NYSDEC will have to include same.

NGVD unless there is a lawfully man made structure (such shoreline if such activities are at an elevation less than 10 The NYSDEC will also have to include approval for any as a functional bulkhead, wall groin constructed prior to in upland construction activities within 300 feet of the

PERMIT for STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES if the site is 10 acres or

TOWN OF BROOKHAVEN:

Exact requirements are not known until the scope of the project has been determined. However, on a preliminary basis, according to Commissioner Carole Swick of Planning and Environmental Development the following approvals may be and are considered to probably be required:

WETLANDS PERMIT for the in-water and shoreline interface activities including the dredging, breakwater and/or groin extensions, docking facilities, bulkheading piling and similar activities.

SITE PLAN APPROVAL from the PLANNING BOARD including the possibility of a PUD MASTER PLAN APPROVAL.

VARIANCES and/or Special Permit from the ZONING BOARD OF APPEALS.

TOWN BOARD for any needed zoning changes

As part of the approval process within the Town and New York
State SEQR (the State Environmental Quality Review Act)
will have to be complied with which will require the
determination of a lead agency, coordination of all NYS
involved agencies, the preparation of both a Long Form
Environmental Assessment Form and a comprehensive
Environmental Impact Statement which will have to
address the impacts of all of the proposed activities as
stated above as well as addressing truffic, road
improvements including signalization, extensions,

widening, road building and/or rebuilding, adequate sewage capacity and sanitary facilities.

CITY OF NEW HAVEN

Exact requirements are not known until the scope of the project has been determined. However, on a preliminary basis, according to Zoning Director Phillip Boldoc of the City Plan Office the following approvals may be and are considered to probably be required:

Zoning Change from the Board of Alderman Planning Commission - Coastal Site Plan Review Harbor Commission - Review and Recommendations

the harbor. Additional consideration for the type of Conceptual Approval and later a Detailed Approval traffic conflicts as well as obtaining a State Traffic Commission Permit due to the creation of parking Statement will be required that will address all the zoning laws are silent regarding Ferry services in Planning Commission requires both a preliminary zone that would be deemed appropriate such as a probably include either a change in the permitted consideration must be given to traffic in terms of It is anticipated that a full Environmental Impact Mixed Planned Development District or a State the replacement of the Que Bridge, capacity and specifies to the City of New Haven that would uses of a zoning change or both since existing Municipal Planned Development. Additional and traffic for more than 200 vehicles. The features discussed above along with certain under their Coastal Site Plan Review.